

Listing of the Claims:

1-2. (canceled)

3. (previously presented) A pharmaceutical composition comprising core-shell particles, said core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a crosslinked polymer having a permeability for potassium ion that is higher than the permeability for a competing cation, and having a thickness ranging from about 0.002 microns to about 50 microns.

4. (previously presented) The pharmaceutical composition of claim 3 or 53 wherein said core-shell particles have a capacity for binding potassium ion and retaining a significant amount of the bound potassium ion during a period of residence in a gastrointestinal tract of a human subject.

5-13. (canceled)

14. (previously presented) The pharmaceutical composition of claim 3 wherein said permeability of said shell component polymer to said potassium ion is independent of said permeability of said shell component to said competing cation.

15. (previously presented) The pharmaceutical composition of claim 3 wherein said core component is physically or chemically attached to said shell component.

16-17. (canceled)

18. (previously presented) The pharmaceutical composition of claim 3 wherein said shell component polymer exhibits greater interaction with said competing cation compared to said potassium ion.

19. (previously presented) The pharmaceutical composition of claim 3 wherein said shell component polymer repels said competing polymer by ionic interaction.

20. (previously presented) The pharmaceutical composition of claim 3 wherein said shell component polymer has a thickness ranging from about 0.005 μm to about 20 μm .

21. (previously presented) The pharmaceutical composition of claim 3 wherein said core-shell particle is about 200 nm to about 2 mm in size.

22. (previously presented) The pharmaceutical composition of claim 3 or 21 wherein said shell component polymer has a thickness ranging from about 0.005 μm to about 20 μm .

23-28. (canceled)

29. (previously presented) The pharmaceutical composition of claim 3 wherein said shell component is deposited with a coating process.

30. (previously presented) The pharmaceutical composition of claim 3 or 53 wherein said pharmaceutical composition further comprises an enteric coating.

31-33 (canceled)

34. (previously presented) A method of treating an animal subject, comprising administering to an animal subject in need thereof an effective amount of the pharmaceutical composition of claim 3 or 53.

35. (canceled)

36. (previously presented) The method of claim 34 wherein said animal subject is suffering from a disease selected from the group consisting of renal insufficiency, renal failure, end stage renal disease (ESRD) and combinations thereof.

37-39. (canceled)

40. (previously presented) The method of claim 34 wherein said animal subject is suffering from hyperkalemia.

41-50. (canceled)

51. (previously presented) The invention of claim 3 or 21 wherein said shell component polymer has a thickness ranging from about 0.005 μ m to less than about 10 μ m.

52. (previously presented) The invention of claim 3 or 21 wherein said shell component polymer has a thickness ranging from more than about 1 μ m to less than about 10 μ m.

53. (previously presented) A pharmaceutical composition comprising core-shell particles, said core-shell particles comprising a core component and a shell component, the core component comprising a potassium-binding cation exchange polymer, the shell component comprising a crosslinked polymer having a permeability for potassium ion that is higher than the permeability for a competing cation, the weight ratio of the shell component polymer to the core component polymer ranging from about 0.0001:1 to about 0.5:1.

54. (previously presented) The pharmaceutical composition of claim 53 wherein the weight ratio of the shell component polymer to the core component polymer ranges from about 0.002:1 to about 0.1:1.

55. (previously presented) The invention of claim 3 or 53 wherein the core component comprises a crosslinked cation-exchange polymer.

56. (previously presented) The invention of claim 3 or 53 wherein the core component comprises a cation-exchange polymer comprising acidic functional groups.

57. (previously presented) The invention of claim 3 or 53 wherein the core component comprises a cation-exchange polymer comprising functional groups selected from the group consisting of carboxylate, phosphonate, sulfate, sulfonate, sulfamate and combinations thereof.

58. (previously presented) The invention of claim 3 or 53 wherein the shell component comprises a crosslinked synthetic polymer.

59. (previously presented) The invention of claim 3 or 53 wherein the shell component comprises an ethylenic polymer.

60. (previously presented) The invention of claim 3 or 53 wherein the shell component comprises a vinylic polymer.

61. (previously presented) The invention of claim 3 or 53 wherein the shell component comprises a crosslinked vinylic polymer.

62. (previously presented) The invention of claim 3 or 53 wherein the shell component is essentially not disintegrated during the period of residence of the core-shell particles in the gastro-intestinal tract.

63. (previously presented) The invention of claim 4 wherein the core-shell particles retain at least about 50% of the bound potassium ion with the core-shell particles for the period of residence of the core-shell particles in the gastro-intestinal tract.

64. (previously presented) The invention of claim 4 wherein the core-shell particles retain at least about 75% of the bound potassium ion with the core-shell particles for the period of residence of the core-shell particles in the gastro-intestinal tract.

65. (previously presented) The invention of claim 4 wherein the core-shell particles selectively bind potassium ion over the competing cation during the period of residence of the core-shell particles in the gastro-intestinal tract.

66. (previously presented) The invention of claim 4 wherein the human subject is suffering from renal insufficiency.

67. (previously presented) The invention of claim 4 wherein the human subject is suffering from renal failure.

68. (previously presented) The invention of claim 4 wherein the human subject is suffering from end stage renal disease (ESRD).

69. (previously presented) The invention of claim 4 wherein the human subject is a dialysis patient.

70. (previously presented) The invention of claim 4 wherein the human subject is suffering from hyperkalemia.